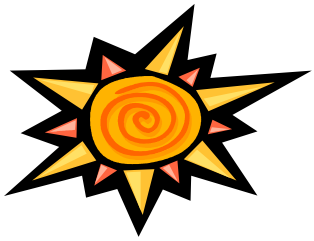


Vernal Equinox
March 20, 2005

March 20, 2005 is a date that we in the Northern Hemisphere recognize as symbolic of changing seasons. As we welcome spring, people south of the equator are actually gearing up for the cooler temperatures of autumn.

What Happens at the Equinox?

Far from being an arbitrary indicator of the changing seasons, March 20 (March 21 in some years) is significant for astronomical reasons. On March 20, 2005, at precisely 7:34 a.m. EST (12:33 Universal Time), the Sun will cross directly over the Earth's equator. This moment is known as the vernal equinox in the Northern Hemisphere. For the Southern Hemisphere, this is the moment of the autumnal equinox.

From InfoPlease
http://www.infoplease.com/spot/riteofspring1.html

Websites You May Want to Visit

Wikipedia
http://en.wikipedia.org/wiki/Vernal_equinox

InfoPlease
http://www.infoplease.com/spot/riteofspring1.html

The Vernal Equinox
http://www.equinox-and-solstice.com/html/vernal_equinox.html

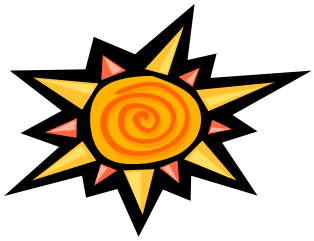
Books You May Want to Read (Hint: go to the TEL Database, What Do I Read Next and choose to do a Custom Search. Under Subject, choose astronomy and then hit Search.)

The Spring Equinox: Celebrating the Greening of the Earth by Ellen Jackson; illustrated by Jan Davey Ellis
A detailed look at the history and festivals behind this special day, which occurs in the third week of March in the Northern Hemisphere.

Sunshine Makes the Seasons by Franklyn M. Branley; illustrated by Giulio Maestro
Describes how sunshine and the tilt of the earth's axis are responsible for the changing seasons.

Children's Night Sky Atlas by Robin Scagell
Sky maps and constellations explained.

The Kids Book of the Night Sky by Ann Love & Jane Drake; illustrated by Heather Collins



Vernal Equinox
March 20, 2005

Using a written text, myths and legends, jokes, and activities, the authors present an excellent introduction to the many wonders of the night sky throughout the seasons.

Exploring the Night Sky: The Equinox Astronomy Guide for Beginners by Terence Dickinson ; principal illustrations by John Bianchi.

To Find More about Astronomy Topics

In TEL, go to Kids InfoBits or Junior Edition - K12 and use the following search strategies:

Solstice	Solar	Seasons	Equinox
Stars	Planets	Equinox	Constellations
Eclipse	Solar system	Galaxy	Moons
Nebula	Orbit	Asteroid	Comet

Just for Fun

During the course of the year, we all notice that the Sun appears at different places during the same time of the day. At 6 P.M. in July it's still sunny outside, while at 6 P.M. in January the Sun has already set. It's easy to notice difference over the course of months, but what about the difference over weeks or even days?
With this activity you can verify that the Sun appears in a different location at a specific time every day of the year with one exception. On March 21, the Vernal (spring) Equinox, and September 21, the Autumnal (fall) Equinox, you will find the Sun in exactly the same position in the sky.

What you'll need:
1 - 2 x 2-foot (60 x 60 centimeter) wooden board or cardboard square
1 - 10 to 12-inch wooden stick, 1/4 to 1/2 inches in diameter
1 - tube of glue
1 - marker

- Glue the wooden stick to the cardboard square so that it stands upright (as shown in the sketch below). To assure that the full shadow fits on the cardboard, you may want to glue the stick closer to one of the edges.
- Once the glue is dried and the stick can stand by itself, place the cardboard square on a flat surface where it will be exposed to the Sun. Take note of the time of day. Mark the point on the board where the tip of shadow is located and write the date. It is very important that the board be oriented in the same direction each time you lay it on the ground to mark the board. You might mark one of the edges of the cardboard square as a point of orientation
- Repeat this daily or weekly at the exact same time each day.